

What is claimed is:

1           1.     A printing method comprising the steps of:  
2           dividing print data of a first print data source into a plurality of data  
3 blocks each containing a plurality of pages;  
4           generating resource data from each data block and converting the page  
5 print data of each data block to display data by using the resource data;  
6           printing the display data; and  
7           clearing the resource data and granting permission to a print request  
8 from a second print data source when the display data of the first print data  
9 source has been printed.

1           2.     A printing method for first and second print data sources, said  
2 first and second print data sources respectively producing first and second  
3 print data, each of the print data being divided into a plurality of data blocks  
4 each containing multiple pages, comprising the steps of:  
5           a)     printing a data block of said first print data when said first print  
6 data source is requesting a print of said first print data;  
7           b)     repeating step (a) if said second print data source is not  
8 producing said second print data; and  
9           c)     printing a data block of said second print data if said second  
10 print data source is requesting a print of said second print data.

1           3.     The printing method of claim 2, wherein a number of said  
2 multiple pages contained in each of said data blocks of said first and second  
3 print data are variable.

1           4.     The printing method of claim 2, further comprising the step of  
2     repeating step (a) or (c) depending on whether said first print data source is  
3     requesting a print of said first print data or said second print data source is  
4     requesting a print of said second print data.

1           5.     The printing method of claim 2, wherein each of said first and  
2     second print data contains a command signal, and wherein step (b) further  
3     comprises the step of detecting the command signal in said first print data  
4     and repeating step (a) if the command signal is detected, and wherein step (c)  
5     further comprises the step of detecting the command signal in said second  
6     print data and repeating step (c) if the command signal is detected.

1           6.     The printing method of claim 2, wherein step (a) comprises the  
2     steps of:

3           a<sub>1</sub>)     generating resource data from a data block of said first print  
4     data;

5           a<sub>2</sub>)     storing the resource data in memory;

6           a<sub>3</sub>)     converting each page data to display data using the resource  
7     data stored in said memory; and

8           a<sub>4</sub>)     clearing the resource data when the display data of said data  
9     block is printed.

1           7.     The printing method of claim 2, wherein each of said first and  
2     second print data contains configuration data for determining a plurality of  
3     print conditions, further comprising the steps of:

4           storing the configuration data in a buffer; and

5           repeatedly using the stored configuration data when the display data

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6 of said data block is printed by either step (a) or step (c).

1 8. A printing method for first, second and third print data sources  
2 which produce first, second and third print data respectively, each of the first,  
3 second and third print data containing a plurality of data blocks each  
4 containing a plurality of pages, comprising the steps of:

5 a) assigning higher priority to said second interface and lower  
6 priority to said third interface;

7 b) printing a data block of said first print data when said first print  
8 data source is requesting a print of said first print data;

9 c) repeating step (b) if said second and third print data sources are  
10 not producing said second and third print data;

11 d) printing a data block of said second print data if said second  
12 print data source is requesting a print of said second print data, regardless of  
13 whether said third print data source is requesting a print of said third print  
14 data; and

15 e) printing a data block of said third print data if said third print  
16 data source is requesting a print of said third print data.

1 9. A printer controller comprising:

2 first and second interfaces respectively connected to first and second  
3 print data sources, said first and second print data sources respectively  
4 producing first and second print data, each of the first and second print data  
5 comprising a plurality of data blocks each containing a plurality of pages; and

6 a control module for receiving the first print data from said first  
7 interface if said first print data source is requesting a print of said first print  
8 data for printing on a printer, and receiving the second print data from said

9 second interface for printing on said printer if said second print data source is  
10 requesting a print of said second print data.

1 10. The printer controller of claim 9, further comprising a converter  
2 for converting print data to display data, wherein said control module directs  
3 said converter to convert a data block of the first print data to display data  
4 and supplies the display data to the printer.

1 11. The printer controller of claim 9, further comprising at least one  
2 buffer for storing a data block of one of said first and second print data.

1 12. The printer controller of claim 9, further comprising first and  
2 second buffers connected to the first and second interfaces, respectively, said  
3 first buffer storing a plurality of data blocks of said first print data, and said  
4 second buffer storing a plurality of data blocks of said second print data.

1 13. The printer controller of claim 9, further comprising a memory,  
2 and wherein the control module has the functions of:  
3 generating resource data from a data block of said first print data;  
4 storing the resource data in said memory;  
5 converting each print data to display data using the resource data  
6 stored in said memory; and  
7 clearing said resource data when the display data of said data block  
8 has been printed.

1 14. The printer controller of claim 9, further comprising a buffer,  
2 and wherein each of said first and second print data contains configuration

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3 data for determining a plurality of print conditions, and said control module  
4 stores the configuration data in said buffer, and repeatedly uses the stored  
5 configuration data for setting said printer before multiple page data of next  
6 group are printed.

1 15. A printer controller comprising:

2 first, second and third interfaces respectively connected to first, second  
3 and third print data sources, said first, second and third print data sources  
4 respectively producing first, second and third print data, each of the print  
5 data comprising a plurality of data blocks each containing a plurality of  
6 pages, said second interface being assigned higher priority and said third  
7 interface being assigned lower priority; and

8 a control module for receiving a data block of said first print data from  
9 the first interface for printing on a printer, receiving a data block of said  
10 second print data from the second interface if a print request is received  
11 therefrom after printing has been performed on the data block of the first  
12 print data for processing on said printer, regardless of whether said third  
13 print data source is requesting a print of said third print data, and receiving a  
14 data block of the third print data from the third interface if a print request is  
15 received therefrom after printing has been performed on the data block of the  
16 second print data.

1 16. The printer controller of claim 15, further comprising a  
2 converter for converting print data to display data, wherein said control  
3 module directs said converter to convert a data block of the first print data to  
4 display data and supplies the display data to the printer.

1           17.    The printer controller of claim 15, further comprising at least  
2   one buffer for storing a data block of one of said first and second print data.

1           18.    The printer controller of claim 9, further comprising first,  
2   second and third buffers connected to the first, second and third interfaces,  
3   respectively, said first buffer storing a plurality of data blocks of said first  
4   print data, said second buffer storing a plurality of data blocks of said second  
5   print data, and said third buffer storing a plurality of data blocks of said third  
6   print data.

1           19.    The printer controller of claim 15, further comprising a memory,  
2   and wherein the control module has the functions of:  
3       generating resource data from a data block of said first print data;  
4       storing the resource data in said memory;  
5       converting the first print data to display data using the resource data  
6   stored in said memory; and  
7       clearing said resource data when the display data of said data block  
8   has been printed.